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## **CSC354 – Assignment2 – ML – Decision Trees**

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### **Question 3: Report of attempting Q1 and Q2.**

Question 1 using Datasaurus Dozen dataset

#### **Decision Tree Classifier**

J48-Baseline model Accuracy: 0.4378  
J48 Classifier using Random Search cv Accuracy: 0.4162  
J48 Classifier using Grid Search cv Accuracy: 0.4459

#### **Random Forest Classifier**

Random Forest Classifier - Baseline Accuracy: 0.4675  
Random Forest Classifier using random search cv Accuracy: 0.4838  
Random Forest Classifier using Grid search cv Accuracy: 0.4946

#### **Question 2 using car prices dataset**

Decision Tree Regressor - Baseline  
Mean Absolute Error: 184762.4059621478  
Mean Squared Error: 200907725450.77017

Decision Tree Regressor using random search cv  
Mean Squared Error: 161219963330.64587  
Mean Absolute Error: 175527.83791119847

Decision Tree Regressor using Grid search cv  
Mean Squared Error: 161227098821.54395  
Mean Absolute Error: 175514.39684617028